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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------|-------------|----------------------|---------------------|------------------|
| 10/722,628 | 11/28/2003 | Var Lordahl | Valve | 7115 |
| 42811 | 7590 | 02/17/2006 | EXAMINER | |
| KAJANE MCMANUS | | | HEPPERLE, STEPHEN M | |
| MCMANUS AND ASSOCIATES | | | | |
| 1505 ASHLEY COURT | | | ART UNIT | PAPER NUMBER |
| WOODSTOCK, IL 60098 | | | 3753 | |

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/722,628 | LORDAHL ET AL. | |
| | Examiner | Art Unit | |
| | Stephen M. Hepperle | 3753 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 January 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-13 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 28 November 2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

The drawings are objected to because the informality of the numerals. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 2, "preferred" and in claim 11, "preferably" render the claims indefinite because it is unclear if PTFE is actually part of the claimed invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Nambu or Takano et al. Moen shows a mixing valve cartridge with a pressure balancing valve spool 40 reciprocating inside plastic sleeve 24. Nambu shows a spool valve with a plastic spool inside a plastic housing, where the plastic is PTFE or PEEK (col. 4, lines 50-59). Takano teaches a pressure balancing spool made of PTFE because of light weight and self-lubrication ability (col. 4, lines 45-49). It would have been obvious to make the Moen sleeve and/or spool of PTFE as taught by Nambu because PTFE is well known for its superior chemical resistance and low friction. Alternatively, it would have been obvious to make the Moen plastic sleeve 24 and/or spool 40 of PTFE as taught by Takano to reduce weight and provide self lubrication.

Claims 3-7 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Nambu or Takano et al. as applied above, further in view of Powers et al. Powers shows a mixing valve with a pressure balancing spool having a spring 52 that biases the spool in a direction to restrict hot water from inlet 10, to assure no hot water gets through if there is no cold water (for safety). It would have been obvious to add a biasing spring to Moen to restrict hot water to prevent scalding as taught by Powers. To restrict the hot supply 16, the spring would be placed between the Moen spool 40 and stem 44. In the absence of other disclosure, it would be reasonable to assume that the Moen stem is made of metal. Alternatively, it would have been obvious to make the stem of metal to transmit force of the handle 20 to the valve, avoid stripping of the screw that fastens the handle, and because that is the normal material because of its strength.

Applicant's arguments filed 18 January 2006 have been fully considered but they are not persuasive. While both Nambu and Takano deal with gases, they still are valves that handle fluid. Also, the attributes of PTFE are well known in the fluid (and other arts). For example, Takano teaches the use of PTFE because of its self-lubricating properties. Because Moen has relatively moving parts and because Takano teaches making moving valve components (a valve spool) of PTFE because of self-lubrication, it would have been obvious to make the Moen spool and/or sleeve of PTFE to take advantage of the self lubrication properties. The fact that applicant uses PTFE for lubrication and high temperature capabilities does not negate application of Takano. If there is a teaching to use PTFE that is applicable to Moen, the combination is obvious. The fact that Moen may use metal parts is not seen as a teaching away from the use of plastic. It simply means that Moen doesn't anticipate the claims. With respect to Powers, the motivation to put a spring in Moen may be different than applicant's motivation; there is no requirement that the motivation be the same as in applicant's invention. It is only sufficient that there be motivation to one of ordinary skill in the art. In this case, Powers provides motivation.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lyon shows a mixing valve where the valve 16 (called a stem) is made of PTFE.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Hepperle whose telephone number is 571-272-4913. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on 571-272-4930. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephen M. Hepperle
Primary Examiner
Art Unit 3753

SMH